narrowly joined to the nearest median spot; in the figure these two spots are entirely separate. The local examples are remarkable for bilateral symmetry, which the figure markedly lacks. The light markings of primary in two of the local males are moderately more developed than in the Arizona male as figured. The two females have these light markings still more produced; in other respects they differ little from the males.

Comparing the description of *Arctia remissa* of Hudson Bay, doubtfully named by Henry Edwards as a new species (Entomologica americana, January 1888, p. 184), I find my local examples true *yarrowi* as distinguished from *remissa*, and not close enough to the latter to give much aid in determining its validity as a species. The color of the light markings on anterior wing of *yarrowi* is described in the text as "clear lemon-yellow"; in description of *remissa* it is stated as buff; in my local examples of *yarrowi* the color is buff, modified by a slight tinge of olive.

That *yarrowi* is strictly alpine in this district is not certain, though strongly indicated by the facts so far learned. If, *in addition*, its occurrence in Arizona should prove to be *at low elevation*, such a combination would make a most singular case in geographical distribution. Probably, however, its occurrence in Arizona is entirely alpine.

Thomas E. Bean

Entomological Notes.—The Division of Entomology of the United States department of agriculture, has issued a circular regarding the appearance this year of either race of the "seventeen year locust," asking for any confirmatory experience as to the appearance or non-appearance of the insects in any locality. Any evidence giving the extent of territory over which they appear or any well-attested dates of their appearance in previous years, will be thankfully received and appreciated. The following list is prepared from previous records.

Brood XVI.—Tredecim—(1880, 1893).

Alabama.—Lowndes County.

Georgia.—Cobb and Cherokee Counties.

Tennessee.—Lincoln County.

North Carolina.—Lincoln and Moore Counties.

This brood is but little known, and all require further confirmation this year.

Brood XI.—Septendecim—(1876, 1893).

North Carolina.—From Raleigh, Wake County, to the northern line of the State: also in the counties of Rowan, Davie, Cabarrus, and Iredell.

Virginia.—From Petersburg, Dinwiddie County, to the northern line of the State; Bedford and Rockbridge Counties; Valley of Virginia from the Potomac River to the Tennessee and North Carolina lines.

District of Columbia.—Woods north of Washington.

Maryland.—Southern half of St. Mary's County.

Kentucky.—Trimble County.

Indiana.—Knox, Sullivan, and Posey Counties.

Illinois.—Madison County.

Kansas.—Dickinson and Leavenworth Counties.

Colorado.—Cheyenne Canyon.

This is a well-established brood, most of the localities in the Eastern States as well as those in Indiana and Illinois having been verified in the past years; but the localities in Kentucky and Kansas require confirmation, and that in Colorado is extremely doubtful.

Professor Riley in his interesting address on parasitism in insects, printed in the Proceedings of the entomological society of Washington, has, apparently, overlooked the fact that the "genuine oestrid larva" recorded and figured by Packard as taken from under the skin of the back of the neck of the box turtle, *Cistudo carolina*, has been proved by Wheeler (Psyche, v. 5, p. 403) to be a species of Sarcophaga.

Mr. J. M. Aldrich, lately of Lawrence, Kansas and formerly entomologist to the experiment station at Brookings, S. Dakota, has been appointed entomologist to the experiment station at Moscow, Idaho.

Rübsaamen has published in the Berliner entomologische zeitschrift (v. 37) a systematic study of the Cecidomyidae of the Berlin museum, accompanied by 14 plates illustrating the structure of the wings, abdominal appendages, antennae, head, pupae and "breast bone". They are divided into 2 subfamilies and 23 genera, 4 of them new; 80 species are considered.

The first (double) number of the same journal for 1893 is given up to the first instalment of a description by Karsch of the insects of Adeli, West Africa, consisting of the Apterygota, Odonata, Orthoptera saltatoria, and butterflies.

Aldrich publishes in the first part of vol. 2 of the Kansas university quarterly a revision of the N. American species of the dipteran genera Dolichopus and Hygroceleuthus, 81 of the former (21 new) and 5 of the latter (1 new). An excellent plate is added, especially devoted to antennae.

Moore's Lepidoptera Indica (part 15) is still occupied with the Satyrinae; the early stages of only one species are figured, but the wet-season and dry season broods of eight species are distinguished.

PROCEEDINGS OF SOCIETIES.

CAMBRIDGE ENTOMOLOGICAL CLUB.

14 April, 1893.— The 178th meeting was held at 156 Brattle St., Mr. S. Henshaw in the chair. Mr. H. A. Morgan of Baton Rouge, La., was elected to active membership.

Mr. S. H. Scudder showed the fossil fly from Florissant which he had described under the name of *Mycetophactus intermedius*. Owing to a suggestion of M. Ch. Brongniart of Paris he had re-examined the specimen and found that he had been mistaken in referring it to the Mycetophilidae, since the antennae are brief and not very long as he had supposed and the relative stoutness of the legs showed that notwithstanding its apparently spurred tibiae and small size it belonged to the neighboring family Bibionidae and to the genus Penthetria, an existing genus already well-known in tertiary deposits.

Mr. A. G. Mayer remarked on the lepidopterous fauna of the Bahamas which he had just visited. All the species found by him, with the exception of a Utetheisa, are strong fliers, as the weak fliers are blown off shore by the trade winds. *Anosia plexippus* was seen as well as species of Pieridae, Heliconidae and Hesperidae. The fauna and flora seem derived largely from the United States, though in part from South America.

Mr. Scudder called attention to a recent paper by Hampson on stridulation in Lepidoptera and said he had heard a clicking sound from Polygonia faunus on Mt. Washington, N. H. Mr. Mayer said he had observed the same in P. interrogationis.

Mr. A. P. Morse exhibited specimens of the pupae and imagines of a moth found feeding on woolens; also the opened egg cocoon of a spider which in nature bore a considerable resemblance to an oak apple.

Dr. H. S. Pratt stated that he had recently been engaged in studying the embryology of the sheep tick. The head is developed in the embryo but is concealed in the larva by two imaginal disks, which are formed by invagination on the dorsal side at some distance from the anterior end; they remain latent during the larval state and in the pupa are developed into the head. The larva bears considerable resemblance to that of the fly.